



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D4776-1
Job Sheet 169898



Part No: D4776-1

Job Qty: 25 ea

Part Name: Basket Strut Clevis



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 1/3/18

Job Tracking No:

Due Date: 1/19/18

Created By: Mario Poulin

Type: Stock

Description:

Note: DWG REV D SHEET 1 IPP REV:A 13.02.28 NEW ISSUE DD VERF:JFS IPP REV:B 13.09.26 AS PER REV.B DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	25 Ea		1/18/18	0.00	0.00	Start Up Machining-3		
100	Doosan	25 pcs		1/18/18	0.54	13.30	Doosan		
105	QC	25 pcs		1/18/18	0.00	0.00	QC2 Machining-3		
111	QC	25 pcs		1/18/18	0.00	0.00	QC8 Machining-3		
112	HandFinish	25 pcs		1/18/18	0.00	0.72	HandFinish1		
113	QC	25 pcs		1/18/18	0.00	0.00	QC7-4		
115	Powdercoat	25 pcs		1/19/18	0.00	0.29	Powdercoat1		
116	QC	25 pcs		1/19/18	0.00	0.00	QC3		
130	Packaging	25 pcs		1/19/18	0.00	0.00	Packaging3-2		
140	QC21-SA	25 Ea		1/19/18	0.00	0.00	QC21	5+124	

Part Op 100 - 1- Turn as per Folio FB167 Dwg D4776 Rev: 2

Descriptions: 115 - MASK .403 ROUND SECTION AS PER DWG

M 138467. START: 3:20. O.V.T: 3:00 FINISH: 3:50.

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	M6061T6R1.500	7	22	0	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Basket Strut Clevis	0.880Inches $\pm$ 0.030	0.910 0.850	.880	
2	Basket Strut Clevis	0.438Inches $\pm$ 0.010	0.448 0.428	.440	
3	Basket Strut Clevis	0.380Inches $\pm$ 0.030	0.410 0.350	.380	
4	Basket Strut Clevis	0.625Inches $\pm$ 0.010	0.635 0.615	.625	
5	Basket Strut Clevis	1.750Inches $\pm$ 0.030	1.780 1.720	1.752	
6	Basket Strut Clevis	3.500Inches $\pm$ 0.030	3.530 3.470	3.503	
7	Basket Strut Clevis	45.000Degrees $\pm$ 0.500	45.500 44.500	Angle 45°	

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐	AGAINST DEPARTMENT/PROCESS Cross tube ☐ Water Jet ☐ Engineering ☐ Small Esh ☐ Prod. Eng. Coord. ☐ Quality ☐																																																																																								
Date : _____	Step #: _____	QTY Effective _____																																																																																									
Description Work Order Deviation																																																																																											
Root Cause <table style="width:100%;"> <tr><td>Environment</td><td>☐</td><td>No Re-verification</td><td>☐</td></tr> <tr><td>Design</td><td>☐</td><td>Operator</td><td>☐</td></tr> <tr><td>Doc/Data</td><td>☐</td><td>Offset/Setup</td><td>☐</td></tr> <tr><td>Equip/Tooling</td><td>☐</td><td>Supplier</td><td>☐</td></tr> <tr><td>Handling/Pre</td><td>☐</td><td>Training</td><td>☐</td></tr> <tr><td>Material</td><td>☐</td><td>Use for Testing</td><td>☐</td></tr> <tr><td>Internal Transport</td><td>☐</td><td>Poor Information</td><td>☐</td></tr> <tr><td>Tribal Knowledge</td><td>☐</td><td>Rushing</td><td>☐</td></tr> <tr><td>LOA</td><td>☐</td><td>Product Improvement</td><td>☐</td></tr> <tr><td>Substation</td><td>☐</td><td>Process Improvement</td><td>☐</td></tr> <tr><td>Past Expiry Date</td><td>☐</td><td>Manufacturing Process</td><td>☐</td></tr> <tr><td>Misidentified</td><td>☐</td><td>Past Due</td><td>☐</td></tr> </table> <table style="width:100%;"> <tr><td>Pressure/Forced</td><td>☐</td><td>Temperature/Cure</td><td>☐</td></tr> <tr><td>Bending</td><td>☐</td><td>Set-up</td><td>☐</td></tr> <tr><td>Centre Not Concentric</td><td>☐</td><td>BOM/Route</td><td>☐</td></tr> <tr><td>Cracks</td><td>☐</td><td>Broken/Damage/Defi</td><td>☐</td></tr> <tr><td>Crimp/Kink/Ripple/Wave</td><td>☐</td><td>Inspection Incomple</td><td>☐</td></tr> <tr><td>Cuffs</td><td>☐</td><td>Contamination</td><td>☐</td></tr> <tr><td>Crushing</td><td>☐</td><td>Countersink</td><td>☐</td></tr> <tr><td>Heat Treat</td><td>☐</td><td>Cut Too Short</td><td>☐</td></tr> <tr><td>Wave/Twist in Tube</td><td>☐</td><td>Instructions Incompl</td><td>☐</td></tr> <tr><td>Marks/Chatter</td><td>☐</td><td>Drill Holes</td><td>☐</td></tr> </table> OTHER : _____				Environment	☐	No Re-verification	☐	Design	☐	Operator	☐	Doc/Data	☐	Offset/Setup	☐	Equip/Tooling	☐	Supplier	☐	Handling/Pre	☐	Training	☐	Material	☐	Use for Testing	☐	Internal Transport	☐	Poor Information	☐	Tribal Knowledge	☐	Rushing	☐	LOA	☐	Product Improvement	☐	Substation	☐	Process Improvement	☐	Past Expiry Date	☐	Manufacturing Process	☐	Misidentified	☐	Past Due	☐	Pressure/Forced	☐	Temperature/Cure	☐	Bending	☐	Set-up	☐	Centre Not Concentric	☐	BOM/Route	☐	Cracks	☐	Broken/Damage/Defi	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomple	☐	Cuffs	☐	Contamination	☐	Crushing	☐	Countersink	☐	Heat Treat	☐	Cut Too Short	☐	Wave/Twist in Tube	☐	Instructions Incompl	☐	Marks/Chatter	☐	Drill Holes	☐
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 1270 Aberdeen Street
 Hawkesbury, ON K64 1K7
 CANADA
 TEL.: 1 613 632-5200
 Email: sales@dartaero.com
 www.dartaerospace.com

DART
 AEROSPACE
S041466



Basket Strut Clevis

PART NO: D4776-1
Original Serial #: S041466
Revision:
Operation: Start up Operation 02/12/18
Change No: Job No: 169898

8	Basket Strut Clevis	0.030Inches ± 0.030	0.060 0.000	
9	Basket Strut Clevis	0.060Inches ± 0.030	0.090 0.030	Radius .025 .062
10	Basket Strut Clevis	0.196Inches + 0.006 - 0.001	0.202 0.195	Diameter .196
11	Basket Strut Clevis	0.261Inches + 0.006 - 0.001	0.267 0.260	Diameter .260
12	Basket Strut Clevis	0.410Inches ± 0.030	0.440 0.380	Radius .410
13	Basket Strut Clevis	1.130Inches ± 0.030	1.160 1.100	1.130
14	Basket Strut Clevis	0.188Inches ± 0.010	0.198 0.178	.188
15	Basket Strut Clevis	0.190Inches ± 0.030	0.220 0.160	.190
16	Basket Strut Clevis	0.500Inches ± 0.030	0.530 0.470	.500
17	Basket Strut Clevis	0.750Inches ± 0.010	0.760 0.740	.750
18	Basket Strut Clevis	0.403Inches + 0.000 - 0.005	0.403 0.398	Diameter .398
19	Basket Strut Clevis	0.130Inches ± 0.030	0.160 0.100	Radius .125
20	Basket Strut Clevis	0.750Inches + 0.010 - 0.000	0.760 0.750	.753
21	Basket Strut Clevis	0.160Inches ± 0.030	0.190 0.130	.160
22	Basket Strut Clevis	45.000Degrees ± 0.500	45.500 44.500	Angle 45°

Plex 1/3/18 8:55 AM dart.poulin.mario

29" ↘
5021845 ↗
"60" 148

DQA: _____ Date: _____

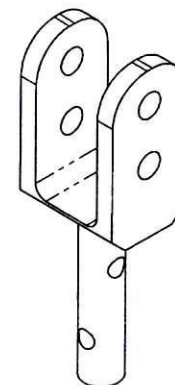
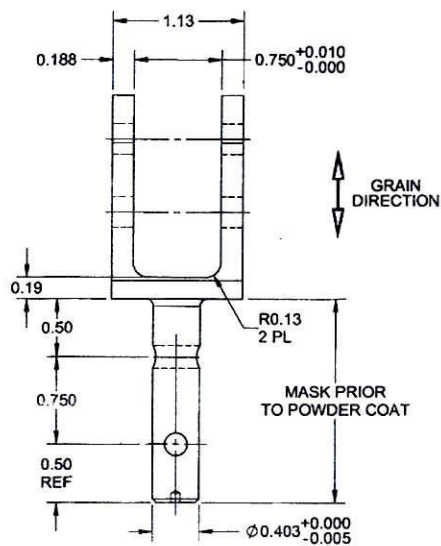
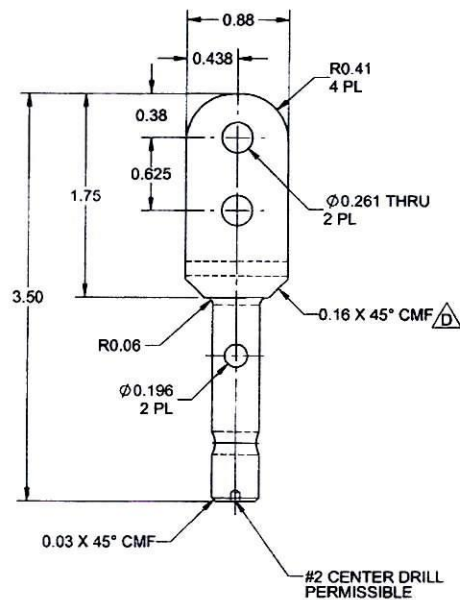


WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					



RELEASED
2014-07-30

D4776-1 BASKET STRUT CLEVIS

NOTES:

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8
(OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.08 lbs

D	SHT 1, C6 CHAMFER ADDED. SEE PAR 14-353. SHT 2 ZONE B2 1.813 DIM ADDED FOR CLARITY. ZONE B3 0.53 DIM CORRECTED TO 0.55 DUE TO DESIGN ERROR SEE PAR 14-328.	AJS	14.07.14
C	SHT 2, C7, 1.13 DIM WAS 0.88. C8 0.688 WAS 0.438. ADDED TOP VIEW WITH CHAMFERS. REASON: INTERFERENCE WITH OEM SADDLES.	AJS	13.10.31
B	MULTIPLE DIMENSIONS UPDATED ON -1 FOR INSTALLATION OF 1/4" FASTENERS. INDEX OF HOLES ON THE STEM OF -1 ROTATED 90°. FINISH ADDED TO -1. TOLERANCE ON CLEVIS FOR -1 & -3 TIGHTENED. ADDED -5. REASON: EASE OF INSTALLATION. C3-2 DEPTH DIM ADDED.	AJS	13.08.14
A	NEW ISSUE	AJS	13.08.08
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS		
DRAWN	AJS		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	14.07.14		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO.
D4776
REV. D
SHEET 1 OF 3
TITLE
BASKET STRUT MACHINED PARTS
SCALE
NTS

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